

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

To:

see form PCT/ISA/220

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/GB2004/004369

International filing date (day/month/year)  
15.10.2004

Priority date (day/month/year)  
07.11.2003

International Patent Classification (IPC) or both national classification and IPC  
A01M1/20

Applicant  
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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. IV Lack of unity of invention**

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1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☒ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☐ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:  
**see separate sheet**
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
  - ☐ the parts relating to claims Nos.

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

|                               |             |   |
|-------------------------------|-------------|---|
| Novelty (N)                   | Yes: Claims | 3-19,26-40,42,44-53,55-68,72-85,89,90,92-95 |
|                               | No: Claims  | 1,2,20-25,41,43,54,69,70,71,86-88,91,96,97  |
| Inventive step (IS)           | Yes: Claims | 44,45,89,90                                 |
|                               | No: Claims  | 1-43, 46-88,91-97                           |
| Industrial applicability (IA) | Yes: Claims | 1-97  |
|                               | No: Claims  |   |

2. Citations and explanations

**see separate sheet**

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**Box No. VII    Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**Re Item IV**

**Lack of unity of invention**

There are 3 inventions claimed in the present international application, covered by the following groups of claims:

- Group 1: claims 1-46, 54-87: packaging means for retaining vapour active pyrethroids, as well as the method of emanating a vapour active pyrethroid into the atmosphere and the use of a packaging means;
- Group 2: claims 47-53: cellulosic based substrate;
- Group 3: claims 88-96: indicator for indicating the end of life of a packaging means.

It is considered that the application does not comply with the requirement of unity of invention (Rule 13.1 PCT) for the reasons indicated below.

The definitions of the different groups of claimed inventions are only intended to identify said inventions in a concise manner. They may well, as such, comprise terms or generalisations which upon a close analysis could be found to extend the defined subject-matter beyond the contents of the applications as filed.

Document JP-A-10265303 (see figures 1, 2) discloses a container for insecticides.

- The special technical features, as defined in Rule 13.2 PCT, of the first group of claims, which are intended to be a contribution over this prior art, i.e. the top, base, and longitudinal member, apparently solve the problem of improving the rate of emanation of the pyrethroid.
- The special technical features, as defined in Rule 13.2 PCT, of the second group of claims, which are intended to be a contribution over said prior art, i.e. the surface area of 50-5000 cm<sup>2</sup> and the height of about 8-23 cm, apparently solve the problem of achieving a specific range of emanation rates.
- The special technical features, as defined in Rule 13.2 PCT, of the third group of claims, which are intended to be a contribution over said prior art, i.e. the end of life indicator, apparently solve the problem of displaying when the packaging means is

substantially depleted.

No same or similar special technical features can be determined and different underlying problems are solved. Moreover, it is clear that the 3 claimed inventions can be applied independently of each other, i.e they are not necessarily inter-related.

It appears therefore that no technical relationship between the various claimed inventions exists involving one or more of the same or corresponding special technical features, beside the common and already well known feature of the container, see document JP-A-10265303. The 3 groups of claims are thus not so linked as to form a single general inventive concept.

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

Reference is made to the following documents:

D1: EP-A-0 792 581

D2: FR-A-1.087.662

D3: US-A-4,063,664

D4: US-A-3,837,532

1. Although claims 1, 2, respectively 54, 71 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.
2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claims 1, 2, 54, 71, 88 is not new in the sense of Article 33(2) PCT.

- 2.1. The document D1 discloses (the references in parentheses applying to this document):  
A packaging means for retaining vapour active pyrethroids comprising a holder and a cellulosic based substrate impregnated with the vapour active pyrethroid (see figures 5a, 5b; see page 2, lines 54-56: "*paper*"; see page 2, lines 27, 28), wherein the holder comprises a top, a base (see page 2, lines 49-51: "*plane members*"; see page 2, line 53) and a longitudinal member vertically extending from between the top and base (see page 2, lines 49-51: the "*paper support*" can be considered as a longitudinal member vertically extending between top and base: see figure 5b), and wherein the cellulosic based substrate (see page 2, lines 54-56: "*paper*") has a honeycomb configuration (see page 2, line 49) adapted to be retained between the top and base (see page 2, lines 49-50) and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to control flying insects (as implied by page 3, lines 13-15) (**claim 1**).
- 2.2. The document D1 discloses (the references in parentheses applying to this document):  
A method of emanating a vapour active pyrethroid into the atmosphere by the use of a packaging means for retaining vapour active pyrethroids comprising a holder and a cellulosic based substrate impregnated with the vapour active pyrethroid (see figures 5a, 5b; see page 2, lines 54-56; see page 2, lines 27, 28), wherein the holder comprises a top, a base (see page 2, lines 49-51: "*plane members*"; see page 2, line 53) and a longitudinal member vertically extending from between the top and base (see page 2, lines 49-51: the "*paper support*" can be considered as a longitudinal member vertically extending between top and base: see figure 5b), and wherein the cellulosic based substrate (see page 2, lines 54-56) has a honeycomb configuration (see page 2, line 49) adapted to be retained between the top and base (see page 2, lines 49-50) and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to control flying insects (as implied by page 3, lines 13-15) (**claim 54**).
- 2.3. Moreover, the document D2 discloses a packaging device having all the technical features and method steps in combination according to claims 1 and 54.
- 2.4. The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent **claims 2, 71**, which therefore are also considered not new.
- 2.5. The document D3 discloses (the references in parentheses applying to this document):  
An indicator (see figures 1-5) for indicating the end-of-life of a packaging means (32) for retaining and emanating a vapour active pyrethroid comprising a counter (70), an indicator display (LED 14) located on the counter and a gear mechanism (70) adapted to rotate the counter one increment each time the packaging means is extended from

closed position to an open position (see column 5, lines 3-32) such that a user is able to ascertain from the display when the packaging means is substantially depleted in vapour active pyrethroid thereby having reached the EOL (see column 6, line 55-column 7, line 3) (**claim 88**).

2.6. Moreover, the document D4 discloses an indicator having all the technical features in combination according to independent claim 88.

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent **claim 47** does not involve an inventive step in the sense of Article 33(3) PCT.

3.1. Document D1, which is considered to represent the most relevant state of the art, discloses:

A cellulosic based substrate having a honeycomb structure (see figure 5; see page 1, line 49);

3.2. from which the subject-matter of claim 47 differs in that when the substrate is in an extended state, it has a surface area of about 50-5000 cm<sup>2</sup> and a height of about 8-23 cm.

3.3. In the light of the Guidelines 13.14(e)(ii), there is no inventive step when the claimed invention resides in the choice of particular dimensions or other parameters from a limited range of possibilities, and it is clear that these parameters were encompassed by the prior art and could be arrived at by routine trial and error or by the application of normal design procedures.

Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, which is the case here.

4. Dependent claims 3-43, 46, 48-53 55-70, 72-87, 91-97 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step:

4.1. The features of **claims 20-25, 41, 43, 69, 70, 86, 87** are directly known from document D1.

4.2. The features of **claims 91, 96, 97** are directly known from document D3 or D4.

4.3. The additional features of **claims 3, 4, 19, 26-40, 42, 46** concern only minor modifications or they are the result of routine engineering which lie within the normal



practice of the skilled person.

- 4.4. In the light of the Guidelines 13.14(e)(ii), **claims 5-18, 48-53, 55-68, 72-85, 92-95** are not inventive.
5. The combination of the features of dependent **claims 44, 45, 89, 90** is neither known from, nor rendered obvious by, the available prior art.

**Re Item VII**

**Certain defects in the international application**

The reference number of the last dependent claims 91, 93, 94, 95, 96 is incorrect, and is interpreted respectively as 93, 94, 95, 96, 97.

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